

Quarterly Progress Report

October through December 2016

Remedial Design - Lower 8.3 Miles of the Lower Passaic River

Operable Unit Two of the Diamond Alkali Superfund Site

In and About Essex, Hudson, Bergen and Passaic Counties – New Jersey

January 17, 2017

Revision 0

LPROU2-17-7.1.3-0003



Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum

PREPARED ON BEHALF OF

Settling Party

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TETRA TECH

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1 INTRODUCTION

As per the Administrative Settlement Agreement and Order on Consent for Remedial Design (Settlement Agreement) Statement of Work, Paragraph 4.3, the Quarterly Progress Report provides a description of activities that took place during the subject period, including:

- a) **Summary of Activities:** The actions that have been taken toward achieving compliance with the Settlement Agreement;
- b) **Sampling Results/Data:** All results of sampling, tests and all other data received or generated by Settling Party, in an interactive, searchable database (in Excel or Access format). This database will be equivalent in form and function to any database used by the Settling Party in the development of the RD;
- c) **Description of Deliverables:** A description of all deliverables that Settling Party submitted to EPA;
- d) **Remedial Design (RD) Schedule:** An updated RD Schedule, together with information regarding approximate percentage of completion, delays encountered or anticipated that may affect the future schedule for completion of the RD, and a description of efforts made to mitigate those delays or anticipated delays;
- e) **Description of Modifications:** A description of any modifications to the work plans or other schedules that Settling Party has proposed or that have been approved by EPA; and
- f) **Community Involvement Plan (CIP) Activities:** A description of all activities undertaken in support of the CIP during the reporting period and those to be undertaken in the next reporting period.

Descriptions of these activities for the subject period are presented in the following sections. Additionally, the Quarterly Progress Report includes the following attachments:

- Attachment I Remedial Design (RD) Project Deliverables Schedule; and
- Attachment II Project Deliverables Chronology

2 SUMMARY OF ACTIVITIES DURING REPORTING PERIOD

Various activities were performed during the reporting period to support compliance with the Settlement Agreement, as summarized below.

2.1 PLANNING ACTIVITIES

The following planning activities have been performed:

- Meetings between Glenn Springs Holdings, Inc. (GSH) and the Supervising Contractor, Tetra Tech, Inc. (Tetra Tech), to plan for project activities.
- Development of work breakdown structure.
- Development of RD Schedule (as described in Section 5.0).
- Development of staffing plans for execution of activities required by Settlement Agreement.

2.2 TASK SPECIFIC ACTIVITIES

The following task-specific activities have been performed:

- **Data Review and Management:** Organization, initial review, evaluation and summary of the initial historic sediment sampling data from prior investigations.

On December 7, 2016 Tetra Tech received a portable hard drive from HDR Engineering, Inc., consultant to EPA, with the results of previous hydrodynamic modeling simulations performed by HDR/HydroQual, Inc. Tetra Tech performed an initial review of the extensive information received and prepared a summary of the provided information.

- **Project Plan Development:** Development of various plans/deliverables as described in Section 4.0.
- **Meetings:** Attendance of regulatory meetings (EPA, GSH and Tetra Tech), as listed below:
 - November 8, 2016 Site Visit (EPA, NJDEP, GSH, Tierra Solutions and Tetra Tech)
 - November 9, 2016 EPA Kick-Off Meeting at EPA Region 2 Offices in New York City (EPA, Louis Berger, HDR and Tetra Tech)

3 SAMPLING RESULTS / DATA

No newly generated sampling, tests and/or other data were received or generated by Settling Party.

4 DESCRIPTION OF DELIVERABLES

The following is a description of all deliverables that were submitted to the EPA during the reporting period. Also refer to Attachment II for the Project Deliverables Chronology.

- **Project Coordinator Designation:** On October 7, 2016, GSH proposed Juan Somoano as the Settling Party's designated Project Coordinator in accordance with the requirements of the Settlement Agreement Paragraph 47.
- **Supervising Contractor Designation:** On October 14, 2016, GSH proposed Tetra Tech, Inc. (Tetra Tech) as the Supervising Contractor in accordance with the requirements of the Settlement Agreement Paragraph 44. The proposal included the submittal of Tetra Tech's Quality Management Plan (Revision 1, October 2016).
In a letter to GSH dated October 19, 2016, the EPA approved Tetra Tech as the Supervising Contractor and provided an authorization to proceed.
- **Financial Assurance:** On October 25, 2016, GSH submitted documentation in the form of an Irrevocable Standby Letter of Credit Non-resp by agmt w requestor in the amount required by the Settlement Agreement Paragraph 112.
- **RD Deliverables:** The draft Project Management Plan (PMP) was submitted via email to the EPA and New Jersey Department of Environmental Protection (NJDEP) on December 20, 2016 (hard copy was express mailed to NJDEP on December 21, 2016).

5 REMEDIAL DESIGN (RD) SCHEDULE

The updated RD Schedule is provided in Attachment I. At this time, no delays have been encountered or are anticipated that may affect the future schedule for completion of the RD. Submitted deliverables and associated correspondence are listed in the Project Deliverables Chronology provided in Attachment II.

6 DESCRIPTION OF MODIFICATIONS

No modifications to the work plans or other schedules have been proposed by Settling Party nor approved by EPA.

7 COMMUNITY INVOLVEMENT PLAN (CIP) ACTIVITIES

GSH attended the CAG meeting held at the St. James Church in Newark, New Jersey on November 10th, 2016. No additional activities are currently planned for the next reporting period. The Settling Party will address CIP activities at the direction of EPA.

ATTACHMENTS

ATTACHMENT I

REMEDIAL DESIGN PROJECT DELIVERABLES SCHEDULE
Pre-Design Investigation and Remedial Design
Lower 8.3 Miles of the Passaic River
Operable Unit Two (OU 2) of the Diamond Alkali Superfund Site
In and About Essex, Hudson, Bergen and Passaic Counties – New Jersey
January 2017

Deliverable ⁽¹⁾	Compliance Milestone ⁽²⁾	Certification Required ⁽³⁾	EPA Approval / Comment	Date to EPA ⁽⁴⁾	Deadline ⁽⁵⁾	SOW Paragraph	Submittal Status (to EPA)	EPA Approval / Comment Status	% Complete ⁽⁸⁾
Progress Reports ⁽⁶⁾				Refer to PMP Jan. 15 th April 15 th July 15 th Oct. 15 th	Quarterly, starting the month following Effective Date of the Settlement Agreement and until the EPA approves the Final (100%) RD.	4.3	Submitted 1/17/2017	na	Ongoing
PMP	X		(does not require)	1/17/17	90 days after EPA's Authorization to Proceed regarding Supervising Contractor	3.1	Draft Submitted 12/20/2016	na	Living Document (to be updated as needed)
RDWP	X		Approval	1/17/17		3.3	Draft Submitted 1/13/2017	pending	50% Pending EPA Comment / Approval
ERP			Approval	1/17/17	With RDWP; supporting deliverable ⁽⁷⁾	5.7(b)	Draft Submitted 1/13/2017	pending	50% Pending EPA Comment / Approval
PDI WP	X		Approval	TBD ⁽⁴⁾	60 days after EPA's approval of RDWP	3.2(a)	Pending EPA approval of RDWP	–	5% (development initiated in 12/2016)
HASP			Comment	With PDI WP	With PDI WP; supporting deliverable ⁽⁷⁾	5.7(a)	With PDI WP		
FSP			Approval			5.7(c)	With PDI WP		
QAPP			Approval			5.7(d)	With PDI WP		
PDI Evaluation Report	X	X	Comment	TBD ⁽⁴⁾	1 year and 180 days after EPA approval of PDI WP	3.2(b)	Pending Approvals of Prior Deliverables and Implementation of PDI Activities	–	0%

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Site Wide Monitoring Plan			Comment*	TBD ⁽⁴⁾	60 days after EPA's approval of RDWP	3.5* & 5.7(e)	Pending Approvals of Prior Deliverables	--	0%
Site Selection and Evaluation WP	X		Approval	TBD ⁽⁴⁾	90 days after EPA's approval of RDWP	3.6(a)	Pending Approvals of Prior Deliverables	--	0%
Site Selection and Evaluation Report	X	X	Comment	TBD ⁽⁴⁾	180 days after EPA's approval of Site Selection and Evaluation WP	3.6(b)	Pending Approvals of Prior Deliverables	--	0%
TSWP			Approval	TBD ⁽⁴⁾	90 days after EPA's approval of PDIWP	3.7(b)	Pending Approvals of Prior Deliverables	--	0%
TS Evaluation Report		X	Comment	TBD ⁽⁴⁾	180 days after EPA's approval of TSWP	3.7(c)	Pending Approvals of Prior Deliverables	--	0%
Preliminary (30%) RD	X		Comment	TBD ⁽⁴⁾	90 days after submittal of PDI Evaluation Report	3.8	Pending Approvals of Prior Deliverables	--	0%
TODP			Comment*	With Preliminary (30%) RD	With Preliminary (30%) RD; supporting deliverable ⁽⁷⁾	3.8* & 5.7(g)	Pending Approvals of Prior Deliverables	--	0%
Intermediate (60%) RD	X		Comment	TBD ⁽⁴⁾	120 days after EPA's comments on the Preliminary (30%) RD	3.9	Pending Approvals of Prior Deliverables	--	0%
Value Engineering			Comment	TBD ⁽⁴⁾	90 days after submittal of Intermediate (60%) RD	3.10	Pending Approvals of Prior Deliverables	--	0%

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(VE) Study Results									
Pre-Final (95%) RD	X		Comment	TBD ⁽⁴⁾	90 days after EPA's comments on the intermediate RD and VE Study	3.11	Pending Approvals of Prior Deliverables	--	0%
CQA/QCP			Comment*	With Pre-Final (95%) RD	With Pre-Final (95%) RD; supporting deliverable ⁽⁷⁾	3.11* & 5.7(f)	With 95% RD		
O&M Plan			Comment*			3.11* & 5.7(h)	With 95% RD		
ICIAP			Comment*			3.11* & 5.7(i)	With 95% RD		
Final (100%) RD	X	X	Approval	TBD ⁽⁴⁾	60 days after EPA's comments on the Pre-Final (95%) RD	3.12	Pending Approvals of Prior Deliverables	--	0%
Periodic Review Support Plan (PRSP)			Approval	TBD at EPA Direction	30 days after EPA request	4.5	Pending Approvals of Prior Deliverables	--	0%

Notes

CQA/QCP Construction Quality Assurance/Quality Control Plan.
 ERP Emergency Response Plan
 FSP Field Sampling Plan (Included as part of the QAPP)
 HASP Health & Safety Plan
 ICIAP Institutional Controls Implementation and Assurance Plan
 PDI Pre-Design Investigation
 PMP Project Management Plan

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QAPP	Quality Assurance Project Plan								
SOW	Statement of Work								
RD	Remedial Design								
TODP	Transportation and Off-Site Disposal Plan								
TS	Treatability Study								
WP	Work Plan								

(1) Information obtained from the Settlement Agreement and SOW (refer to Appendix A and Notes 2 and 3, below).

(2) Compliance Milestone: Identified deliverables are compliance milestones, subject to stipulated penalties, pursuant to the Settlement Agreement Section XVI, Paragraph 80.

(3) Certification: Identified deliverables must be signed by the Settling Party's Project Coordinator, or other responsible official of Settling Party, and must contain the certification statement provided in Section 5.5 of the SOW.

(4) Date to EPA is based on the Effective Date of the Settlement Agreement (September 30, 2016), EPA Authorization to Proceed (October 19, 2016) and the information in the "Deadline" column. Some dates are "TBD" (to be determined) since they are subject to the date of EPA approval of prior deliverables, as specified by the Settlement Agreement and indicated in the "Deadline" column.

(5) Deadline information is based on the RD Schedule in Section 6.2 of the Settlement Agreement SOW.

(6) Quarterly Progress reports proposed for submittal on the 15th of January, April, July and October. If the 15th of the month falls on a weekend or holiday, the report will be submitted the next business day. Refer to PMP Section 3.2.1 for details.

(7) Supporting Deliverables as per Section 5.7 of Settlement Agreement and SOW.

(8) % Complete is an estimate of status of deliverable development relative to EPA comment/approval and finalization.

ATTACHMENT II



January 2017

[illegible]